

## 5.5 Fast Attack Craft

### 5.5.1 Summary

The used international market for fast attack craft (FAC) will be very lucrative for prospective suppliers of such craft as 59 navies currently utilize FAC of all types including missile-equipped, torpedo-equipped, and gun-equipped variants. At least fourteen of those navies can be considered potential candidates for the purchase of used FAC from 2004 through 2013 with even more potential candidates when including torpedo and gun-equipped variants. This report, however, will focus on fulfilling the requirements of sea services that have a desire for the more modern missile-equipped FAC.

The majority of the missile-equipped FAC that will be supplied to prospective recipients will originate from fourteen nations (up to 171 candidate vessels) that currently possess and/or build their own FAC forces and will offer older units for resale. Although there are also many torpedo and gun-equipped FAC available on the open market, they will not be discussed in great detail as the interest for these is expected to be very limited.

The following table depicts those nations that must be considered prospective suppliers and prospective recipients for used vessels from 2004 through 2013:

Prospective Suppliers of Used FAC (2004-2013)		Prospective Recipients of Used FAC (2004-2013)	
China	Poland	Argentina	Morocco
Denmark	Russia	Bangladesh	Peru
Finland	Singapore	Bulgaria	Philippines
Germany	South Africa	Chile	Romania
Greece	South Korea	Ecuador	Tunisia
Israel	Sweden	Indonesia	Ukraine
Norway	Turkey	Kenya	Venezuela

### 5.5.2 Navies With Fast Attack Craft (FAC) Requirements

There are very few navies that do not operate Fast Attack Craft (FAC). Generally those countries that do not operate FAC can be typified as the larger navies of the world that do not perceive a threat to their coastline that would require such a fast response ship.

The FAC can be separated into three categories: missile-equipped, torpedo-equipped, and gun-equipped. The most modern FAC built are missile-equipped and can attack potential enemies with medium and long-range surface-to-surface missiles (SSMs).

The torpedo-equipped and gun-equipped FAC tend to be aging vessels that are beginning to disappear from the world scene since they are considered obsolete by modern standards and operational tactics. However, there are significant numbers of these older FAC still available on the market that will be utilized by the smaller navies of the world that do not have the ability to build or procure a modern FAC as well as several navies that still may have a requirement for a force of such craft.

In regards to the construction of a FAC, it can be said that there are still a number of nations that are embarking on new constructions programs for missile-equipped FAC. Newer FAC builders have made the geo-political decision to acquire and support a navy as well as moving forward with indigenous building programs for its own requirements and/or for export.

The navies of the world that currently operate missile, torpedo, and gun-equipped Fast Attack Craft include:

- Albania
- Algeria
- Argentina
- Bahrain
- Bangladesh
- Brazil
- Bulgaria
- Cambodian
- Chile
- China
- Croatia
- Cuba
- Cyprus
- Denmark
- Ecuador
- Egypt
- Eritrea
- Finland
- Gabon
- Germany
- Greece
- India
- Indonesia
- Iran
- Israel
- Italy
- Japan
- Kenya
- Malaysia
- Mexico
- Morocco
- Myanmar
- Nigeria
- Norway
- Oman
- Pakistan
- Peru
- Philippines
- Poland
- Qatar
- Romania
- Russia
- Saudi Arabia
- Serbia/Montenegro
- Singapore
- South Africa
- South Korea
- Sri Lanka
- Sweden
- Syria
- Taiwan
- Thailand
- Tunisia
- Turkey
- Ukraine
- United Arab Emirates
- Venezuela
- Vietnam
- Yemen

### 5.5.3 Prospective Suppliers

Taking into consideration the nations that currently possess FAC, only a handful currently produce FAC for indigenous use or for export. In general, the nations that produce FAC for indigenous use typically operate these vessels for a 25 to 30-year life cycle, then replace the capability with a new construction vessel, freeing up the decommissioning FAC for resale.

The majority of nations that will be mentioned in this report as prospective suppliers are those navies that will be decommissioning FAC from 2004 through 2013 that are typically around 30 years of age although some will be over 30 years.

Prospective suppliers that may have available FAC available from 2004 through 2013 include:

- China
- Denmark
- Finland
- Germany
- Greece
- Israel
- Norway
- Poland
- Russia
- Singapore
- South Africa
- South Korea
- Sweden
- Turkey

Of the candidates listed above, all prospective FAC suppliers will be subdivided into two categories due to the two distinct markets that they will serve. The missile-equipped FAC will more than likely be utilized by navies that currently have surface-to-surface missile (SSM) capabilities and sufficient funds to procure these types of FAC. The torpedo-equipped and gun-equipped FAC will more than likely be utilized by navies that do not have an SSM capability or adequate funding to operate a modern navy.

### 5.5.3.1 Missile-Equipped FAC

In regards to missile-equipped FAC, Russia and China will probably have the most to offer although the market for their respective FAC must be considered very small in comparison to others that will originate from European sources. China currently has 71 Houku/Hegu class FAC built in the early 1970s in service or reserve and Russia has three classes of FAC in service including 32 Tarantul I/II/III, Matka and Mukha classes built from the late 1970s through the 1980s. Russia and China would both decommission active duty ships for transfer in order to gain access to hard currency as well as preference in future new construction contracts.

Denmark is currently operating fourteen Flyvefisken class FAC that were built from 1989 through 1996. Although still new, the Danish Armed Forces are considering cutbacks in the active forces including naval ships. Up to four units of the Flyvefisken class could be decommissioned from 2005 through 2009 in order to meet reduction goals and may be offered for resale.

Finland is currently operating four Helsinki class FAC that were built from 1981 through 1986 and are currently planning for a major upgrade from 2004 through 2008 to extend the service lives an additional 20 years. This class is only mentioned as an option in the event the Finland cancels its modernization program or decides to reduce its active forces.

Germany is also in possession of twenty FAC in two separate classes. The ten units of the Albatross class built in the mid-1970s are expected to decommission beginning in 2005 and will be offered for resale on the used international market. Mention of Tunisia and Morocco as potential candidates for their acquisition has already been in the press. The remaining ten units of the Gepard class were built in the mid-1980s and will probably remain in service until at around 2012 through 2014, as they are replaced by the K-130 corvettes and then offered for resale.

Greece currently operates four Aninos and six Votsis class FAC built in the early 1970s and nine units of the Laskos class built in the late 1970s and early 1980s. These three classes could be decommissioned and resold at anytime due to their advanced age and Greece is currently involved in new FAC programs such as the Super Vita class that will be replacing some of these units.



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Israel continues to operate three classes of FAC including the Reshef (1) commissioned in 1979, the Aliya (2) in 1980 and the Nirit (6) in the early 1980s (final five modernized underwent a modernization program in the 90s). The two Aliya class are in the process of being sold to Mexico. The Reshef class could become available at anytime. The Nirit class will remain in indefinite service.

Norway is currently operating fourteen units of the Hauk class. In the government's most recent defense document, Norwegian Armed Forces 2005-2008, the Hauk class is listed as a class to decommission. Therefore, it is anticipated that these ships will begin decommissioning sometime before 2008, even though all of the units of the class underwent a mid-life refit from the late 1990s through 2003. Due to the recent refit this class should be found particularly attractive to a number of navies.

The four Gornik class FAC of the Polish Navy were commissioned from 1983 through 1989, however, could begin decommissioning at any time since these units as they have a questionable role in the Polish Navy as it transforms from a Warsaw Pact Navy to a North Atlantic Treaty Organization (NATO) Navy and continues with its corvette program.

Singapore currently operates six Sea Wolf class FAC that were built from 1972 through 1976. As the Singaporean Navy continues to build larger more capable naval vessels, it will begin decommissioning its smaller vessels such as FAC and offshore patrol vessels (OPVs). With the scheduled commissioning of six Formidable class frigates from 2007 through 2010, the Singaporean Navy will probably begin decommissioning its FAC force in the same timeframe to man its new frigates. Expect all six of the Sea Wolf class to be resold.

South Africa also is currently operating a force of FAC, five units of the Warrior class built from 1978 through 1986. The South African Navy plans to begin decommissioning its FAC force in 2005 as it transitions from a coastal defense force to a blue water navy. The Warrior class will begin decommissioning as the first Amatola class frigate enters service in 2005.

Sweden is currently operating two classes of FAC, four units of the Norrkoping class built from 1973 through 1976 and eight units of the Kaparen class built from 1980-1982. The four Norrkoping class will decommission in 2005 and 2006 following the commissioning of the

first two Visby class corvettes and the Kaparen class will probably decommission from 2006 through 2008 as the remainder of the Visby class commission through 2007.

Turkey currently operates sixteen FAC, eight units of the Kartal class built from 1967 through 1970 and eight units of the Dogan class built from 1977 through 1988. The Kartal class could begin decommissioning at anytime due to their advanced age and the Dogan class will probably decommission from 2010 through 2014 as the Turkish Navy commissions its new Kilic class FAC.

Nations that currently operate missile-equipped FAC that may be candidates for transfer to a recipient nation over the next decade (2004-2013) are listed as follows with the prospective decommissioning date, vessel class, number available and country:

Projected Years of Decommissioning	Class	Number Available	Country
Anytime	Houku/Hegu	40	China
2005-2009	Flyvefisken	4	Denmark
2014-2018	Helsinki	4	Finland
Anytime	Albatros	10	Germany
2012-2014	Gepard	10	Germany
Anytime	Combattante II	4	Greece
Anytime	Combattante III	9	Greece
2004	Aliya	2	Israel
Anytime	Reshef	1	Israel
2006-2009	Hauk	14	Norway
Anytime	Tarantul I	4	Poland
Anytime	Tarantul II/III	26	Russia
Anytime	Matka	2	Russia
2007-2009	Seawolf	6	Singapore
2005	Warrior	5	South Africa
2006-2008	Kaparen	8	Sweden
2005-2006	Norrkoping	6	Sweden
Anytime	Kartal	8	Turkey
2010-2014	Dogan	8	Turkey

### 5.5.3.2 Torpedo and Gun-Equipped FAC

Of the prospective suppliers that currently operate torpedo and gun-equipped FAC, Russia, China and South Korea have the largest numbers to offer. However, even though numbers of available FAC are very high, the demand for these types of FAC will probably be very low. Most of these FAC are considered to be obsolete and possible recipients are likely to use this market as a last resort in order to fulfill their

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requirement. Some nations will also utilize these vessels since they are situated in a geographical area where missile-armed vessels are not common and the low-tech gun FAC is better suited.

China currently has about 80 Hainan class FAC built from 1974 through 1990 in service and Russia operates over 40 gun-equipped FAC of the Pauk I/II, Stenka, and Muravey classes. Russia and China would both decommission active duty ships for transfer in order to gain access to hard currency as well as preference in future new construction contracts. South Korea operates eight FAC of the Pae Ku class that could be decommissioned at any time due to their advanced age.

Singapore decommissioned its three Vosper Type FAC in 1997 and is currently planning to offer two units to Papua New Guinea. A third unit remains available for transfer as of this writing.

Poland currently operates eleven Pilica class FAC commissioned from 1977 through 1983. These vessels could be decommissioned at anytime since Poland is currently transforming from a Warsaw Pact Navy to a North Atlantic Treaty Organization (NATO) Navy.

Nations that currently operate torpedo and gun-equipped FAC that may be candidates for transfer to a recipient nation over the next decade (2004-2014) are listed as follows with the prospective decommissioning date, vessel class, number available and country:

Projected Years of Decommissioning	Class	Number Available	Country
Anytime	Hainan	80	China
Anytime	Pilica	11	Poland
Anytime	Pauk I/II	22	Russia
Anytime	Stenka	20	Russia
Anytime	Muravey	9	Russia
Anytime	Vosper Type	3	Singapore
Anytime	Pae Ku	8	South Korea

### 5.5.4 Prospective Recipients

Prospective recipients for FAC from the used international market will fall into two separate categories. The first category will include modern navies that already have a surface-to-surface missile (SSM) capability and intend to keep a modern force of FAC with missile armament. These navies will also have some level of funding for the required transfer of the missile-equipped FAC as well as additional funding to support some type of modernization package and for general upkeep once in inventory.

The second category will involve recipients that will probably procure aging torpedo and gun-equipped FAC in order to maintain a surface fleet. These recipients typically do not operate navies with missile armament and usually are cash strapped with very few alternatives. These vessels will typically be procured with little or no modernization effort and generally fall into a state of disrepair shortly after delivery. Navies that typically



procure these types of FAC do so as a last resort and utilize the vessels to fulfill a myriad of missions such as fast attack, patrol, or auxiliary.

### 4.5.5 Situational Assessment of Potential Recipient Navies

The Assessment section of this report will also fall into two distinct categories. The first will be a detailed assessment of navies requiring missile-equipped FAC and some of the prospective candidates to fulfill those requirements. The second category will be a general listing of the countries that may utilize the torpedo and gun-equipped FAC market. No detailed assessment will be made in this category as the options for matching prospective suppliers and recipients are to numerous to mention and is only meant as a general tool showing what is available and the potential recipients.

#### 4.5.5.1 Missile-Equipped FAC Assessment

##### Argentina

The Argentine Navy currently operates two Intrepeda class (German TNC 45) FAC commissioned in 1974. Although current planning by the Argentine Navy calls for larger vessels such as frigates, offshore patrol vessels (OPVs) and patrol boats, funding is extremely limited delaying many programs (funding reduced by 66% over the past several years). Argentina could procure additional FAC from the used international market to supplement its Intrepeda class FAC until new vessels of other types can be procured. The Argentine Navy, a major recipient of German made equipment could choose from several possible candidates

including the German Albatros class which will begin decommissioning (10 units) in 2005, the Singaporean Sea Wolf (Luerksen TNC 45) that may be available beginning in 2007, or the Turkish Kartal and Dogan classes, both based on Luerksen Werft designs. The Kartal class could become available at anytime and the Dogan class is expected to begin decommissioning by around 2010.

##### Bangladesh

The Bangladeshi Navy currently operates a mixture of aging Chinese missile, torpedo and gun-equipped FAC. Due to an extremely limited budget, the Bangladeshi Navy has had a difficult time in funding new construction vessels and continues to rely on new construction and used vessels from China. Future requirements by the Bangladeshi Navy will probably also continue to be met by China with South Korea playing a secondary role.

As the Bangladeshi Navy continues to update its existing force, it will continue to utilize the used international market. Bangladesh will not only procure missile-equipped vessels but may also continue purchasing torpedo and gun-equipped FAC as well.

Candidates for Bangladesh will include the Houku/Hegu class from China that are available at anytime. Bangladesh received five Hegu class from China in the early 1980s. The Singaporean Sea Wolf class in 2007 may also be an option as well as the Turkish Kartal and Dogan classes. The Kartal class due to their advanced age could become available at anytime and the Dogan class beginning in 2010.

##### Bulgaria

Bulgaria is currently in the midst of transitioning from a former Warsaw Pact country to a North Atlantic Treaty Organization (NATO) member, which occurred in April 2004. As part of the transition, Bulgaria is also expected to transition its navy from former Soviet built naval vessels to those that are more interoperable with the new Western alliance. Although Bulgaria has plans for new corvettes, FAC, mine warfare and auxiliary vessels; an extremely small procurement budget for the rest of the decade suggests that the Bulgarian Navy may have to take interim steps to integrate with NATO.

Those interim steps probably include the acquisition of used vessels including FAC from the international market. In order to replace its aging OSA I FAC





to transfer these vessels, as well as the Finnish Helsinki class (commissioned from 1981-1986 and currently undergoing a modernization effort) if Finland decides to retire some FAC early.

### **Ecuador**

The Ecuadorian Navy is currently operating three Quito (Luerssen 45) class FAC commissioned in 1976 and 1977. These vessels have received mid-life refits in the mid-1990s but are reported to be in poor material condition with one unit non-operational. Although Ecuador would like to acquire a new FAC, reality suggest that funding would not be available until around the middle of the next decade (around 2015). Due to the poor material condition of the Quito class, the Ecuadorian Navy could begin looking for used FAC at anytime and would procure them if they were in better operational condition with useful life remaining and the price and terms were favorable to Ecuador.

Candidates could include any used vessels on the market that are in good material condition and the price and financing structure is within Ecuador's means. Some of the available vessels from 2004 through 2012 include the German Gepard class (commissioned from 1982-1984), the Greek Laskos class (commissioned 1977-1981) classes, the Swedish Kaparen class (commissioned 1980-1982), the Turkish Dogan class (later units commissioned in 1987-1988), the Danish Flyvefisken class built in the 1990s if Denmark decides to transfer these vessels, as well as the Finnish Helsinki class (commissioned from 1981-1986 and currently undergoing a modernization effort) if Finland decides to retire some FAC early.

### **Indonesia**

Indonesia currently operates a fleet of four Dagger class FAC that were commissioned in 1979 and 1980. Current planning by the Indonesian Navy includes considerable increases in vessels of all types including submarines, corvettes, as well as amphibious and mine countermeasure vessels (MCMVs). However, funding is very limited with most funding tied up in the acquisition of new corvettes from the Netherlands. The sea service is also planning for two submarines from South Korea. These two programs alone will utilize the majority of the sea services budget for the next five years.

Due to the need for increased numbers of hulls of modern missile and gun-equipped vessels, the Indonesian Navy will probably enter the used international market for missile as well as gun-equipped FAC.

force in the near term, the Bulgarian Navy may attempt to acquire any one of several FAC that will be available at any time including the German Albatros class, the Norwegian Hauk class, the Greek Aninos or Laskos classes, Swedish Kaparen and Norrkoping classes or the Turkish Kartal class.

### **Chile**

The Chilean Navy currently operates three Casma (SAAR 4) class FAC commissioned in 1973 and 1974 (transferred from Israel in 1979 and 1981) and four Riquelme (Tiger (Type 148) class FAC commissioned from 1972 through 1974 (transferred from Germany in 1997 and 1998). The Chilean Navy probably wishes to replace these two classes with new FAC, however, is currently involved in the acquisition of two new Scorpene submarines and accepting five to eight used frigates. It is also planning for several offshore patrol vessels (OPVs) over the next several years. These three programs will utilize the majority of the Chilean navies funding for the rest of the decade and beyond.

If the sea service intends on replacing the current FAC force, it will more than likely rely on the used international market to satisfy its FAC requirements as it did previously. The sea service could attempt to procure used vessels at anytime if the price and terms are beneficial to Chile.

Some FAC that may be available on the international market from 2004 through 2013 include the German Gepard class (commissioned from 1982-1984), the Norwegian Hauk class (commissioned 1978-1980 and recently refitted), the Greek Laskos class (commissioned 1977-1981), the Swedish Kaparen class (commissioned 1980-1982), the Turkish Dogan class (later units commissioned in 1987-1988), the Danish Flyvefisken class built in the 1990s if Denmark decides

Candidates could include any used vessels on the market that are in good material condition and the price and financing structure is within Indonesia's means. This may be an opportunity for Singapore with its Seawolf class (commissioned 1972-1976) to enter the market and help its neighbor. Another strong candidate would be South Korea with whom they are establishing closer ties.

A major point that must be considered by Indonesia is the market itself, which will be restricted due to the international political climate associated with the internal political situation, including East Timor, upheaval in the Aceh Province and most recently the foreign perception that Indonesia has not been completely forthcoming in its International War on Terrorism. These events will probably continue to plague Indonesia for the foreseeable future, restricting the market in which Indonesia can do business.

### Kenya

The Kenyan Navy currently operates two Nyayo class FAC that were commissioned in 1987. These FAC will probably remain operational until around 2017. If the Kenyan Navy plans on decommissioning these vessels at the end of their useful service lives, the sea service will have to begin planning for a new FAC by 2013. If funding is limited, the Kenyan Navy may have to enter the used international market to satisfy this requirement.

However, the majority of the FAC that will be available are of similar age as the Nyano class itself but more than likely in better material condition. The Kenyan Navy would have to make a decision on upgrading the existing force or procure vessels of around the same age that may be in better operational condition, with price and terms, as well as remaining useful years being a key factor.

Candidates of similar age include the Danish Flyvefisken class built in the 1990s if Denmark decides to transfer these vessels, the Finnish Helsinki class built in the mid 1980s (currently undergoing a modernization effort) if Finland decides to retire some FAC early, the German Gepard class (commissioned 1982-1984) and the later units of the Turkish Dogan class that were commissioned up through 1988.

### Morocco

The Moroccan Navy currently operates four Lazaga class FAC that were built in the early 1980s. AMI has projected that Morocco could start a new FAC program as early as 2010.

However, since the terrorist attacks on the US in September 2001, Morocco has become very concerned regarding its long unprotected coastline. It is believed to be looking for additional vessels in an effort to better secure its sea frontier. Planning for a terrorist attack (thwarted) in the Strait of Gibraltar in 2002 further identified the Navy's weaknesses on coastal and strait security.

In mid-2003, AMI received information that the Moroccan Navy was offered the German Albatros class FAC that will begin decommissioning in 2005. Morocco will probably accept as many of these craft as offered due to its concerns for protecting the Strait of Gibraltar as well as its long sea frontier. Other candidates for procurement will probably include the Turkish Katral class that could become available at anytime or the Dogan class in 2010. The Greeks could also offer their Aninos and Laskos class that could also be available at anytime.

### Peru

The Peruvian Navy is currently operating six Velarde class FAC commissioned in 1980 and 1981. These vessels are currently undergoing a mid-life refit to extend their lives to around 2011. At that time, Peru may begin looking for a new FAC to replace the Velarde class. However, funding issues may prevent the Peruvian Navy from replacing the Velarde class with new vessels.

In the event that the Peruvian Navy cannot adequately fund a new FAC program, it may have to enter the used international market as an alternative. This alternative may also not be very attractive as the vessels that will be available will generally be only several years younger than the Velarde class currently in service. However, they could possibly be used as an interim measure until funding becomes available for new FAC.



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Candidates may include the Danish Flyvefisken class built in the 1990s if Denmark decides to transfer these vessels, the Finnish Helsinki class built in the mid 1980s (currently undergoing a modernization effort) if Finland decides to retire some FAC early, the German Gepard class (commissioned 1982-1984) and the later units of the Turkish Dogan class that were commissioned up through 1988.

### Philippines

The Republic of the Philippines is currently planning for up to six FAC under the Armed Forces of the Philippines Modernization Program (AFPMP) that began in 2000. However, insufficient funding since the AFPMP began has led to the delays of almost every naval program including the corvette, (which just got underway in 2003), offshore patrol vessels (OPVs) and FAC. Although the AFPMP stipulates that no used military hardware can be acquired under the modernization program, the Philippine Navy may have no choice.

Funding is so restricted in the Philippines that a new FAC cannot be considered realistic. If the Philippine Navy intends to acquire six missile armed FAC, it will more than likely have to enter the used international market under the auspices of another program rather than the AFPMP. The Philippine Navy could begin looking for used FAC at anytime.

Candidates could include any used vessels on the market that are in good material condition and the price and financing structure is within the Philippines means. Some of the available vessels from 2004 through 2010 include the German Albatros class (commissioned in 1976-1977), the Norwegian Hauk class, the Greek

Aninos (commissioned in 1971-1972) and Laskos (commissioned in 1977-1981) classes, Singaporean Seawolf class (commissioned 1972-1976), and the South African Warrior class (commissioned 1978-1986).

The Philippines may also use a variety of gun-equipped FAC if it cannot acquire any missile armed FAC. The Philippine Navy acquired eight Sea Dolphin class gun-equipped FAC from South Korea in 1995 and 2003 and may acquire additional units in the future.

### Romania

Romania is currently in the midst of procuring two Broadsword (Type 22 Batch 2) class frigates from the United Kingdom under a Romania/United Kingdom government-to-government agreement. Romania is taking delivery of used naval vessels from Western Europe in an attempt to update its naval forces along western lines since the nation was invited to join the North Atlantic Treaty Organization in 2002.

Romania will also probably begin to look for a FAC to replace the three Zborul class that were built in Russia in 1985. Although the Romanian Navy will not have the funding to procure new FAC, it will have many choices if it wishes to upgrade from the Russian-built Zborul to a used Western FAC. For an immediate procurement, candidates could include the German Albatros class, the Greek Aninos and Laskos classes, or the Turkish Kartal class.

By the end of the decade, the Romanians may have additional choices including the German Gepard, Norwegian Hauk, and the Turkish Gogan classes.



### Tunisia

The Tunisian Navy currently operates three La Galite (Combattante IIM) class FAC that were built in the mid-1980s. Although these vessels are still fairly new, Tunisia has expressed interest in procuring additional vessels to increase security along its long sea frontier.

Like Morocco, Tunisia became very concerned about its porous sea frontier following terrorist attacks on the US in September 2001 and in Tunisia in 2002. Tunisia expressed interest in the acquisition of Albatros class FAC from Germany when they are decommissioned in 2005. If approved by Germany, Tunisia will probably acquire several units of the Albatros class. As an alternative, Tunisia could attempt to procure several units of the Turkish Katral class that could become available at anytime or the Dogan class in 2010. The Greeks could also offer their Aninos and Laskos classes, which are also Combattante designs.

### Ukraine

The Ukrainian Navy currently operates two Nikopol (Tarantul II) class FAC that were transferred from Russia in 1997. In order to replace the two Nikopol class at the end of their useful service lives, the Ukrainian Navy would have to begin a new FAC program by 2012. If funding is not available by 2012, the sea service will probably utilize the used international market again. The most likely option would probably be later models of the Tarantul III built in Russia in the late 1980s.

Ukraine, although a member in the Partnership for Peace (PfP) Program with desires to become a member of the North Atlantic Treaty Organization (NATO), will probably still not be able to obtain more sophisticated weaponry from Western Europe or other NATO countries. Only in the event of NATO membership would the Ukrainian Navy be able to procure new or used FAC of Western European or NATO origin. In the unlikely event of NATO membership, Ukraine would have access to several candidates including the Turkish Katral class that could become available at anytime or the Dogan class in 2010.

### Venezuela

Venezuela is currently planning for a new FAC to replace the six units of the Constitucion class commissioned in 1974 and 1975. However, continuing funding limits have delayed this program and the sea service may again attempt to revive the procurement by 2006. If the Venezuelan Navy cannot adequately fund a new FAC, they will more than likely have to enter the used international market as an alternative. The Venezuelan Navy has historically procured its surface combatants from European sources and may attempt to continue this practice with additional FAC.

Only a few classes of FAC may be available in the 2006 timeframe that were built after the Constitucion class in the 1970s. These vessels include the Danish Flyvefisken class built in the 1990s if Denmark decides to transfer these vessels, with the second candidate being the Swedish Karparen class built from 1980 through 1982. Other candidates that are around the same age of the Constitucion class but may be in better material condition include the Greek Laskos class.

### 5.5.5.2 General Listing of Countries That May Procure Torpedo and Gun-Equipped FAC

The following nations that may procure torpedo and gun-equipped FAC from the Used International Market include:

- |              |                     |
|--------------|---------------------|
| • Albania    | • Latvia            |
| • Bangladesh | • Lithuania         |
| • Brazil     | • Mexico            |
| • Cambodia   | • Myanmar           |
| • Cyprus     | • Nigeria           |
| • Eritrea    | • Philippines       |
| • Estonia    | • Serbia/Montenegro |
| • Gabon      | • Slovenia          |
| • Georgia    | • Sri Lanka         |
| • Indonesia  | • Ukraine           |
| • Iran       | • Uruguay           |
| • Kenya      | • Yemen             |

No individual assessment of these countries' likelihood of acquiring these type of FACs is provided as the transfer value of the ship will be nearly negligible and therefore will likely be just one element of a larger political agreement between the supplying and receiving country.

#### Photos Courtesy Of:

- Pg 59: Royal Swedish Navy
- Pg 61: Rosiyskiy Voennomorsky Flot (Russian Navy)
- Pg 62: Israeli Defense Force Navy
- Pg 63: Rosiyskiy Voennomorsky Flot (Russian Navy)
- Pg 64: Hellenic Navy
- Pg 65: South African Navy
- Pg 66: German Navy

